

CIRCLE HEALTH CLINIC



ALASKA RURAL PRIMARY CARE FACILITY ASSESSMENT AND INVENTORY SURVEY REPORT

FEBRUARY 28, 2002



**Tanana Chiefs
Conference, Inc**

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1. EXECUTIVE SUMMARY

A. OVERVIEW

The purpose of this report is to document rural community health program clinic needs. Those needs have been assessed from several perspectives. This is the second stage of the planning and implementation process for improving the quality of rural primary care through capital improvements to community clinics.

The first stage was development of the "Alaska Rural Primary Care Facility Needs Assessment" dated 10/23/2000. The purpose in part of this effort was to establish base lines for the planning and implementation to follow. This second stage is to document rural community health clinic needs and conditions from several perspectives as follows:

- 1) A spatial assessment involving spaces (as-built floor plan) for comparison with pre-established Alaska Rural Primary Care Facility (ARPCF) space basis, as set forth in the ARPCF needs assessment dated 10/23/2000.
- 2) A code and condition survey of the existing facility
- 3) Identification of a site for a new facility (if applicable/decided) and the status of services to that site (road, electricity, water, sewer, etc.).
- 4) Documentation of functional inputs as communicated by local people or observed by the assessment team (Note: functional planning was a component of the needs assessment in the stage 1).
- 5) Development of options to facilitate programmatic and technical needs and deficiencies,
- 6) Costing of those options and
- 7) Recommendations as to the option or options that best address the clinic need and deficiencies¹.

ARPCF clinic basis were standards established in stage 1 based on population. They translate into three clinic sizes as follows:

Small Clinic

Population	20-100
Space Standard	1,535 gsf (heated)

Medium Clinic

Population	101-500
Space Standard	1,989 gsf (heated)

Large Clinic

Population	501+
Space Standard	2,459 gsf (heated) ²

¹ There are only four options available in any rural community as follows: 1) New Facility, 2) Existing Facility renovations and or additions, 3) limited scope renovations and/or additions – driven by committed funding from either capital or operating perspectives (this option is not costable without scope or funding definition), 4) status quo (no change) (note: any of these options can apply to combined facilities existing or envisioned.)

² The intent of the code and condition survey is to identify and cost deficiencies inclusive of spatial deficiencies. The accumulation of those costs is then intended to be compared to the cost of a new clinic. If the costs of renovations and additions exceed 75% of new construction then a new clinic option is considered viable.

Circle has a population of 100 (2000 Census). The population of 100 is at the upper end of the small clinic standard. A population of 101 would entitle them to a medium size clinic. This report will address Circle as a small clinic. The existing Circle clinic appears to have started out as a small house of 500 gsf. It appears that there was later an addition of a small lean-to of 200 gsf added to the small house. The lean-to functions as an exam room. Other additions include a small sheltered back entrance of 28 gsf with a plywood door. There is also a front entrance of 499 sf with colliding exterior and interior doors with 49 gsf. The clinic has a total gross square footage of 777 gsf. This is approximately half the size of the small clinic with 1535 gsf. The clinic is a small wood framed facility with severe heating problems. We suspect this is due to poor insulation, as the village has come back at a later date and skirted the building. Photographs under the building show a thermax insulation added to the soffit. There is no handicap accessibility. Functional arrangements of spaces are unsatisfactory. Hallway configurations are narrow and would not allow a gurney to be moved into the exam room. This facility is not acceptable for renovation. The plumbing was not working at the time of our visit. There is an old outhouse on the property.

Contextual community issues and perspectives are as follows:

We do not recommend renovations and additions to this facility. However, for costing purposes the facility would minimally have to be completely gutted. A 758 sf worth of additions would have to be added to this facility. It would have to have a new foundation, handicap ramps, new arctic entrances, roofing, siding, electrical, plumbing, heating system, etc. Cost estimating experience would suggest that maybe 10% of value would remain in a renovation for the existing portion.

B. RENOVATION/UPGRADE AND ADDITION

We do not recommend renovations and additions to this facility. However, for costing purposes the facility would minimally have to be completely gutted. A 758 sf worth of additions would have to be added to the facility. It would have to have a new foundation, handicap ramps, new arctic entrances, roofing, siding, electrical, plumbing, heating system, etc. Cost estimating experience would suggest that maybe 10% would remain in a renovation. A new clinic is recommend for this community.

C. NEW CLINIC

A person on site indicated the community of Circle had a new site in mind adjacent to the washeteria. The exact status of the site was not determined at the time of the survey. Its adjacency next to the washeteria would suggest that all utilities would be available. A new clinic is recommend for this community over repair and renovation of the existing.

2. GENERAL INFORMATION

A. PURPOSE OF REPORT AND ASSESSMENT PROCESS

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design, and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 3 and 4. The information gathered will be tabulated and analyzed according to an asset of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was revised by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. ASSESSMENT TEAM

The survey was conducted on November 8, 2001 by Robert F. Bezek, Architect, Bezek Durst Seiser, Inc., Charlie Chien M.E. PDC, Inc., Don Antrobus with ANTHC, and Charlie Woodlee and Molly Patton of Tanana Chiefs Conference, Inc. There were no village contacts. Team members who assisted in the preparation of report from information gathered included members of the field team above and Robert Bezek, Bezek Durst Seiser, Inc., and Charlie Chien M.E. PDC, Inc.

C. REPORT FORMAT

The format adopted is a modified "Deep Look" format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to building code compliance, general facility condition, and spatial deficiencies. The written report includes these evaluations, in addition to sketches of building construction details and identification of potential sites (where available) for a new clinic. This information is available for viewing at ANTHC's Anchorage offices and will be held for reference.

D. SITE INVESTIGATION

On November 8, 2001, the team flew to the site, made observations, and took photos. There was no one on site to discuss clinic needs with. A person at community offices suggested the community was looking at a new site adjacent to the Washeteria. Approximately 3 hours was spent at the site. The existing site was as-built to the greatest extent possible.

3. CLINIC INSPECTION SUMMARY

A. COMMUNITY INFORMATION

Population:

- ◆ 100 (2000 Census)
- ◆ 2nd Class City, Unorganized Borough, Yukon Flats School District, Doyon Limited

Location: Circle is located on the south bank of the Yukon River at the edge of the Yukon Flats, 160 miles northeast of Fairbanks. It is at the eastern end of the Steese Highway. It lies at approximately 65d 49m N Latitude, 144d 03m W Longitude. (Sec. 31, T012N, R018E, Fairbanks Meridian.) Circle is located in the Fairbanks Recording District. The area encompasses 107.7 sq. miles of land and .5 sq. miles of water.

History: Circle (also known as Circle City) was established in 1893 as a supply point for goods shipped up the Yukon River and then overland to the gold mining camps. Early miners believed the town was located on the Arctic Circle, and named it Circle. By 1896, before the Klondike gold rush, Circle was the largest mining town on the Yukon, with a population of 700. It boasted an Alaska Commercial Company store, eight or ten dance halls, an opera house, a library, a school, a hospital, and an Episcopal Church. It had its own newspaper, the Yukon Press, and a number of residential U.S. government officials, including a commissioner, marshal, customs inspector, tax collector and postmaster. The town was virtually emptied after gold discoveries in the Klondike (1897) and Nome (1899). A few hearty miners stayed on in the Birch Creek area, and Circle became a small, stable community that supplied miners in the nearby Mastodon, Mammoth, Deadwood and Circle Creeks. Mining activity continues to this day.

Culture: The population of Circle is predominantly Athabascan, but there are several non-Native families. The Circle Civic Community Association was formed in 1967. It cooperates with the traditional council in maintaining the sign area and public boat launch, and in preserving historic sites.

Economy: Circle is connected by road to Fairbanks, so tourists and recreational enthusiasts come through seasonally. Some persons live in the community only during summer months. Employers include the school, clinic, village corporation, trading post, and the post office. Two residents hold commercial fishing permits. Almost all residents are involved in subsistence. Salmon, freshwater fish, moose and bear are the major sources of meat. Trapping and making of handicrafts contribute to family incomes.

Facilities: Most homes haul treated well water from the washeteria/fire station or the school. Outhouses and honey buckets are used for sewage disposal. Over 85% of homes lack plumbing facilities. Circle is examining the feasibility of a new landfill, but will need additional funds to complete the project and close the current site

Transportation: Circle has direct road access to Fairbanks by way of the Steese Highway. Barges deliver goods by the Yukon River during summer. Residents use ATVs, snowmobiles and dog sleds for recreation and subsistence activities. A new State-owned 3,000' lighted gravel airstrip is available. Float planes land on the River.

Climate: Circle has a continental subarctic climate, characterized by seasonal extremes in temperature. Winters are long and harsh, summers warm and short. Summer temperatures range from 65 to 72, winter temperatures can range from -71 to 0. Rainfall averages 6.5 inches, snowfall is 43.4 inches. The Yukon is ice-free from mid-June through mid-October.

B. GENERAL CLINIC INFORMATION

1) Physical Plant Information

The existing Circle clinic occupies approximately 777 gsf. It appears to be in what is a very old house. It appears the original house had two additions. One an exam room that is a lean-to off the eave of one side of the house. The second addition is a small make-do sheltered rear entry with an exterior plywood door.

The spatial layout of the facility is totally unacceptable for a clinic. Hallways are extremely narrow. There is a right-angled hallway going into the exam room. The exam room has a bi-fold door. There are absolutely no handicap accessible features to the facility. It is a poorly insulated old building. It reportedly reaches 50° inside at the severe cold conditions. The community has skirted the building to try to help that condition. There is no access to the underside of the facility other than a hole in the skirting where a camera was inserted and photographs taken. Those photographs show an extremely questionable structure basically consisting of post and pad with no connections between the building and the post. Wood framing was shown used in a flat wise condition with a fair amount of sagging from post to post. Photographs also show a thermo ply material applied to the soffit of the building with considerable sags suggesting minimum thickness. As stated else where in the report there is nothing salvageable about this structure.

C. PROGRAM DEFICIENCY NARRATIVE

1) Space Requirements and Deficiencies

SPACE COMPARISON MATRIX

Current Circle Actual SF to Denali Commission Small Clinic

Alaska Rural Primary Care Facility

Purpose / Activity	Designated Itinerant			Current Clinic			Medium Clinic			Difference		
				Actual Net S.F.			ARPCF SF					
				Size	No.	Net Area (SF)	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)
Arctic Entries				20,36	1	56	50	1	50			6
Waiting/Recep/Closet				110	1	110	100	1	100			10
Trauma/Telemed/Exam				158	1	158	200	1	200			-42
Office/Exam				0	1	0	150	1	150			-150
Admin./Records/Office				95	1	95	0	0	0			95
Pharmacy/Lab				0	2	0	80	1	80			-80
Portable X-ray							0	0	0			0
Specialty Clinic/Health Ed/Conf.				0		0	150	1	150			-150
Patient Holding/Sleeping Room				78	1	78	80	1	80			-2
Storage				56	1	56	80	1	80			-24
HC Toilet				21	1	21	60	1	60			-39
Janitor's Closet				0		0	30	1	30			-30
Subtotal Net Area						574			980			-406
Circulation & Net/Gross Conv. @45%						188			441			-253
Subtotal (GSF)						762			1421			-659
Mechanical Space @ 8%						15			114			-99
Total Heated Space						777			1535			-758
Morgue (unheated enclosed space)							30	1	30			30
Ext. Ramps, Stairs, Loading			HC Accessible			As Required			As Required			As Required

- Overall Space Deficiencies: The size of the facility is about 758 gsf short of the ARPCF space guidelines.
- Specific Room Deficiencies: The arctic entry is small and the doors collide. The bathroom is extremely small and does not meet any handicap standards. The exam room is too small and is inaccessible by gurney. There is an office/reception area that is at the opposite end from the

facilities entrance. The hallways are too narrow and badly configured. There is not a second exam area. There is insufficient mechanical space.

- c. Other Size Issues: The storage space is too small.

2) Building Issues

- a. Arctic Entries: Small clinic standards allow for only one arctic entry. The main entry of the Circle facility entrance is too small, has no ramp, and has stairs constructed of only one single 2x4 railing. The rear entry is a 20 sf vestibule with a plywood exterior door. It is suspected this is meant to deal with heat loss from that second entrance door.
- b. Waiting / Reception: As previously stated the waiting area is combined with an office reception area at the back of the facility opposite the main entrance
- c. Exam / Trauma: This space is totally inaccessible by gurney. It has a bifold door; and there is no acoustical separation from the rest of the clinic. The exam room is too small by standards and is congested.
- d. Exam Room: Small clinics standards account for a second office exam room. There is none.
- e. Office / Administration / Records: There is an office. Small clinic standards do not allow for administration records.
- f. Pharmacy / Lab: There is none.
- g. Specialty Clinic / Health Education / Conference: There is none.
- h. Patient Holding / Sleeping Room: There is an itinerant room with a bed.
- i. Storage: There is a storage area of approximately 56 sf. The door is too small. The storage area is too small.
- j. HC Toilet Facilities: The toilet facility is extremely small 21sf with a sink and toilet. There are no handicap provisions, and no shower.
- k. Janitors Room: There is none.
- l. Mechanical/Boiler Room: There is no mechanical or boiler room. There is a Monitor stove in the reception/office area that provides heat to the facility.
- m. Ancillary Rooms: There is no ancillary room.

3) Functional Design Issues

This facility is functionally inadequate for it's current program and intended use. The spaces do not meet the functional size requirements, sanitation, and are very poorly configured. There is a

severe need for more space to meet delivery needs. The size of the community would indicate a small clinic nearly double the size of the existing clinic. The ability to perform required medical functions in this facility has to be severely hampered by the facility itself, if not impossible.

4) Health Program Issues

- a. Patient comfort and privacy: A bifold door in to the exam room provides absolutely no acoustical separation from the rest of the facility. The facility is reported to be poorly insulated with inside facility temperatures reported to be 50° max at the coldest time of the year.
- b. Medical/Infectious Waste: No one was available to answer how this is handled.
- c. Infection Control: Floor finishes are vinyl tile. This is not the best material for sanitation in a medical clinic.
- d. Insect and Rodent Control: No reported problems.
- e. Housekeeping: The difficulty in cleaning and housekeeping in such a congested facility is understandable and is being done at the best level currently possible.

5) Utilities

- a. Water Supply: The well was reported to be frozen so there was no water available at the time of the site visit.
- b. Sewage Disposal: Unknown.
- c. Electricity: Overhead lines.
- d. Telephone: Overhead lines.
- e. Fuel Oil: Yes

D. ARCHITECTURAL / STRUCTURAL CONDITION

1) Building Construction

- a. Floor Construction: See under floor photo showing sagging multiple 2x's on post with no structural connections to foundations.
- b. Exterior Wall Construction: Appears to be 2x4. Due to heat loss problems with the building minimal insulation is anticipated.
- c. Roof Construction: There is no attic access therefore we don't know if rafters or trusses are used and the insulation value is not known. It is reported the facility drops to 50° at extreme temperatures.
- d. Exterior Doors: The back door is a sheet of plywood. The front door is a wood door that collides with the inner door.
- e. Exterior Windows: Exterior windows are wood casement.
- f. Exterior Decks, Stairs, and Ramps: There are no ramps and the stairs have minimal railing.

2) Interior Construction

- a. Flooring: Flooring is vinyl tile.
- b. Walls: Appear to be 2x4 construction with gypsum board finishes with no sound insulation.
- c. Ceilings: Ceiling appeared to be painted gypsum board over the bottom of either lower cords of wood trusses or ceiling furring. There was no ceiling access.
- d. Interior doors: A conglomeration of doors both inoperable and operable. The exam room door is a bi-fold door. There is no ADA hardware period.
- e. Casework: A mix of furnishings type items with little built in casework of any quality.
- f. Furnishings: Furnishings are old worn out, make do, or borrowed. A mix of metal and wood.
- g. Insulation: From the singular report we received and the lack of access to insulated spaces it is assumed insulation is inadequate.
- h. Tightness of Construction: Doors are poor fitting with rugs shoved under the doors to keep cold from coming in.
- i. Arctic Design: There is no arctic design to this facility.

3) Structural

- a. Foundations: The photograph under the structure shows there are no connections to the foundation system. The building is simply sitting on wood posts, on presumed pads with no structural connections.
- b. Walls and Roof: It appeared that it was a 2x4 constructed house type structure. We assume there were field built trusses in the ceiling roof assembly.
- c. Stairs, Landings, and Ramps: These elements are extremely minimal. There is next to no railings. They are of wood frame construction.

E. MECHANICAL CONDITION

1) Heating System

- a. Fuel Storage and Distribution: An above ground single wall 300-gallon capacity heating fuel oil storage tank installed on a steel stand serves the clinic building heating unit. The distance between the fuel tank and the building is less than the required distance of 5 feet. The fuel oil system location is within 50 feet of the location of the water well of the building and is not equipped with spill containment system.
- b. Building Heating System: The building is served by a single Monitor heater located in the Waiting/Office area.

2) Ventilation System

- a. System: The building is not equipped with mechanical ventilation system. The code required ventilation requirement is satisfied by the fact that most spaces are equipped with operable windows.
- b. Exhaust Air: No special exhaust system is installed at this building. A particular deficiency is noted in that the restroom is not equipped with an exhaust fan.

3) Plumbing System

- a. Water System: The well system was frozen at the time, late November, of the field survey conducted for this report. It is reported that the system freezes up every winter. An electric heat trace system is installed on the water system but apparent is not effective in preventing this situation from occurring. No separate or supplemental water supply system was observed during the field survey. This is a serious deficiency affecting the operation of the clinic.
- b. Sewer System: With the well system frozen, the sanitary waste system is also shutdown at this building.
- c. Fixtures: The fixtures observed at this building are of older vintage and do not conform to acceptable American Disability Act access and general patient care requirements.

F. ELECTRICAL CONDITION

1) Electrical Service

- a. The electrical service for this clinic is a 100-amp 120/240 volt AC single phase three wire system with a meter/disconnect located on the front of the building. The height of the service equipment is too high above grade to be considered readily accessible per NEC 110-26.
- b. The overhead service drop conductors are routed to the meter/disconnect through the roof in an unsupported mast. The clearance above the roof for the service drop conductors appears adequate.

2) Power Distribution

- a. The feeder to the Main Distribution Panel (MDP) consists of three copper conductors. The conductor size was not determined at the time of the site visit but appears adequately sized for a 100 amp feeder per National Electric Code (NEC).
- b. The MDP is a 16-circuit GE panelboard the MDP currently has 10 spare breaker spaces.
- c. The sub-panel is a 6-circuit Sq. D Homeline panelboard the sub-panel currently has no spare breaker spaces.
- d. Branch circuit and feeder neutrals and grounds are connected to the neutral bus in the MDP and the sub-panel, which is a violation of NEC 250-142b.
- e. The feeder from the MDP to the sub-panel does contain a grounding conductor and does not rely on the conduit for grounding between the MDP and the sub-panel.

- f. Miscellaneous materials have been stored in front of the electrical panels and should be removed. Clearance in front of electrical panels is required per NEC 110-26

3) Grounding System

- a. The electrical service does not appear to be connected to the grounding electrode system. Electrical services are required to be bonded to a grounding electrode system with a maximum resistance of 25 ohms.
- b. Interior metal piping of other mechanical systems is required to be bonded to the electrical service per NEC 250-104.
- c. The grounding electrode system does not appear to have a supplementary ground rod. The ground rod is required per NEC 250-52c and 250-56.

4) Exterior Elements

- a. The clinic does not appear to have any exterior general use receptacles. The lack of exterior receptacles usually forces extension cords to be plugged in inside the building and routed through doorways, which is a violation of NEC Article 400. NOTE: Photo CIPB080016 shows an extension cord routed through the entry door.
- b. It is recommended to install individual branch circuits and GFCI protected receptacles for automotive block heaters, commonly known as head bolt heaters.
- c. Exterior lighting is provided by a single fixture located over the main door with photocell control.
- d. There does not appear to be a light fixture for the side door. The requirements for egress lighting are determined by the building code and not within the scope of this electrical report.

5) Electrical devices and lighting

- a. Duplex receptacles are the grounding type.
- b. The total number of receptacles does not appear sufficient for the equipment and loads in place in the clinic.
- c. Lighting fixtures throughout the clinic are predominantly 2 lamp 4' surface mounted fluorescent fixtures with wrap around lenses, the fixtures appear to be in good condition.
- d. Lighting levels in the clinic appear insufficient. The average foot candles (fc) measured in the office areas is 14 fc, the waiting room was measured at 18 fc. Normal general illumination in a clinic should be between 20 and 50 fc based on Illuminating Engineering Society (IES) standards.
- e. The wiring in the clinic is primarily non-metallic sheathed cable (NM). Health Care Facilities are required to have all receptacles and fixed electric equipment, in patient care areas, supplied by circuits in grounded metal raceways with an insulated grounding conductor.

6) Emergency System

- a. There currently is no emergency lighting fixtures installed. Where emergency egress lighting is required by building code, the fixtures shall be powered and provide minimum foot candle (fc)

levels, per the International Building Code (IBC) Section 1003. Branch circuit wiring for emergency lighting shall comply with NEC 700-12.

- b. Non-lighted exit signs are currently installed. Where exit lighting is required by building code, the exit lighting shall be powered and provide minimum foot candle levels, per IBC Section 1003. Branch circuits for exit lighting shall comply with NEC 700-12.

7) Fire Alarm System

- a. One battery powered residential type smoke detector is installed in the waiting room. Fire alarm systems must be installed in accordance with NFPA 72, NFPA 101, NEC and applicable building codes.

8) Telecommunication

- a. The Data Telecommunications system currently provides service to the telephone system and the "Telemed" remote diagnostic system.
- b. The number of data and telephone outlets is not sufficient for the clinic's current and future needs.

G. CIVIL / UTILITY CONDITION

1) Location of Building

- a. Patient Access: Access and location were acceptable however the clinic is somewhat distant from where the housing in the village is.
- b. Service Access: There is a road that goes to the front entrance.
- c. Other Considerations: The facility has poor utility services, and the reported site desired by the community next to the washeteria would vastly improve that situation.

2) Site Issues

- a. Drainage: It did not appear that there were any drainage problems.
- b. Snow: It did not appear snow was a driving consideration.

3) Proximity of Adjacent Buildings

- a. This facility is tucked in behind a store in town, expansion is not an option for this facility.

4) Utilities

- a. Water Supply: As previously reported it was frozen.
- b. Sewage Disposal: There was no one available to report on the sewage disposal system for this facility.
- c. Electricity: Overhead lines.
- d. Telephone: Overhead lines.

H. EXISTING FACILITY FLOOR PLAN (SITE PLAN IF AVAILABLE:

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

- A1 Existing vicinity and site plan is attached.
- A2 Existing facility floor plan attached.
- A3 Existing Typical Wall Section
- A4 Small Clinic Floor Plan

4. DEFICIENCY EVALUATION

A. DEFICIENCY CODES:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

01 Patient Care: Based on assessment of the facilities ability to support the stated services that are required to be provided at the site. Items required for the patients social environment such as storage, privacy, sensitivity to age or developmental levels, clinical needs, public telephones and furnishings for patient privacy and comfort.

02 Fire and Life Safety: These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated life safety aspects of building codes including the Uniform Building Code, International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code. Deficiencies could include inadequacies in fire barriers, smoke barriers, capacity and means of egress, door ratings, safe harbor, and fire protection equipment not covered in other deficiency codes.

03 General Safety: These deficiencies identify miscellaneous safety issues. These are items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices. Corrective actions required from lack of established health care industry safety practices, and local governing body code safety requirements. I.e. Occupational Safety Health Administration (OSHA) codes & standards.

04 Environmental Quality: Deficiencies based on Federal, State and Local environmental laws and regulations and industry acceptable practices. For example this addresses DEC regulations, hazardous materials and general sanitation.

05 Program Deficiencies: These are deficiencies that show up as variations from space guidelines evaluated through industry practices and observation at the facility site and documented in the facility floor plans. These are items that are required for the delivery of medical services model currently accepted for rural Alaska. This may include space modification requirements, workflow pattern improvements, functional needs, modification or re-alignment of existing space or other items to meet the delivery of quality medical services. (Account for new space additions in DC 06 below)

06 Unmet Supportable Space Needs: These are items that are required to meet the program delivery of the clinic and may not be shown or delineated in the Alaska Primary Care Facility Space Guideline. Program modifications requiring additional supportable space directly related to an expanded program, personnel or equipment shall be identified in this section; for example additional dental space,

specialty clinic, storage, or program support space that requires additional space beyond the established program.

07 Disability Access Deficiencies: The items with this category listing are not in compliance with the Americans with Disabilities Act. This could include non-compliance with accessibility in parking, entrances, toilets, drinking fountains, elevators, telephones, fire alarm, egress and exit access ways, etc.

08 Energy Management: These deficiencies address the efficiency of lighting, heating systems/fuel types and the thermal enclosures of buildings, processes, and are required for energy conservation and good energy management.

09 Plant Management: This category is for items that are required for easy and cost efficient operational and facilities management and maintenance tasks of the physical plant.

10 Architectural M&R: Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, general condition of interiors, and prevention of deterioration of structure and systems.

11 Structural Deficiencies: These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.

12 Mechanical Deficiencies: These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems, interior mechanical utilities, requiring maintenance due to normal wear and tear that would result in system failure.

13 Electrical Deficiencies: These are deficiencies with normal or emergency power, electrical generating and distribution systems, interior electrical and communications utilities, fire alarm systems, power systems and communications systems within a building that should be repaired or replaced on a recurring basis due to normal wear and tear that would otherwise result in system failure.

14 Utilities M&R: This category is used for site utilities for incoming services to facilities that are required for the building to be fully operational. Deficiencies may include sewer and water lines, water wells, water tanks, natural gas and propane storage, electric power and telecommunications distribution, etc.

15 Grounds M&R: Real property grounds components that should be replaced on a recurring basis due to normal wear and tear. Deficiencies with respect to trees, sod, soil erosion, lawn sprinklers, parking, bridges, pedestrian crossings, fences, sidewalks & roadways, and site illumination etc. are considerations.

16 Painting M&R: Any painting project that is large enough to require outside contractors or coordination with other programs.

17 Roof M&R: Deficiencies in roofing, and related systems including openings and drainage.

18 Seismic Mitigation: Deficiencies in seismic structural items or other related issues to seismic design, including material improperly anchored to withstand current seismic requirements effect. The elements under consideration should include the cost incidental to the structural work like architectural and finishes demolition and repairs.

B. PHOTOGRAPHS

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. COST ESTIMATE GENERAL PROVISIONS

1) New Clinic Construction

a. Base Cost: The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

- General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.
- The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

b. Project Cost Factors

- Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Estimated Total Project Cost of New Building: This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2) Remodel, Renovations, and Additions

- a. Base Cost: The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.
 - The cost of Additions to clinics is estimated at a unit cost higher than new clinics due to the complexities of tying into the existing structures.
 - Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.
- b. General Requirements Factor: General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Contingency for Design Unknowns (Estimating Contingency): The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

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- e. Estimated Total Cost: This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.
- f. Project Cost Factors: Similar to new clinics, the following project factors have been included in Section VI of this report.
- Design Services is included at 10% to cover professional services including engineering and design.
 - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
 - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- g. Estimated Total Project Cost of Remodel/Addition: This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

5. SUMMARY OF EXISTING CLINIC DEFICIENCIES

The primary deficiency of the Circle facility is that it is one half the size of the small clinic standard. With the population at 100 one more birth would put it in the medium clinic size, making it 60% deficient in space. Considering that it has no acceptable foundation or arctic entry, and that interior space planning would require a gut and redo, and that utilities are inadequate at this site. Relocation and a new clinic are the only viable answer to clinical needs in this community.

6. NEW CLINIC ANALYSIS

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for a village of 100 people (2000 Census). We have also determined the cost of Repair/Renovation & Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 1,535 SF Small Clinic in Circle is projected to be:

▪ Base Anchorage Construction Cost per s.f.		\$183
▪ Project Cost Factor:	@ 45%	\$82
Medical Equipment	17%	
Construction Contingency	10%	
Design Fees	10%	
Construction Administration	8%	
▪ Multiplier for Village	@ 1.219	\$58
Adjusted Cost per SF		\$323

Projected Cost of a New Clinic: 1,535 s.f. x \$323 = **\$495,805**
(not inclusive of site development costs)

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

▪ Code & Condition Repairs/Renovations		
Cost from Deficiency Summary		\$533,909
▪ Remodel/Upgrade work (See Def. Code 01)		
100% of clinic 777 SF = 777 SF @ \$101/SF		\$76,541
▪ Additional Space Required by ARPCF (See Def. Code 06)		
○ Base Anchorage Cost		\$226
Medical Equipment		\$ 32
Additional Costs –		\$ 98
General Requirements	20%	
Estimation Contingency	15%	
○ Multiplier for Village	@1.219	\$78
Adjusted Cost per SF		\$433
Total Addition Cost of 758 SF @ \$433		\$328,507

Projected Cost Factor	@28%	\$262,908
Construction Contingency	10%	
Construction Administration	8%	
Design Fees	10%	

Total Cost of remodel/addition **\$1,201,865**

C. Comparison of Existing Clinic Renovation /Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:

$$\mathbf{\$1,201,865 / \$495,805 = 2.42 \times \text{cost of New Clinic}}$$

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

D. Overall Project Cost Analysis:

The overall project cost analysis below incorporates land, multi-use, utility costs, and road access costs, and project management fees if any are associated with the project.

Item	Quantity	Units	Unit Cost	Area Adjustment Factor	Total Cost	Allowable under "Small" Clinic Process (yes/no)
Primary Care Clinic (Allowable)	1,535	SF	\$265.00	1.219	\$495,805	yes
Clinic (Non-allowable portion)	0	SF	\$265.64	1.219	\$0	no
Land	15,000	SF	\$2.00	1	\$30,000	yes
Multi-Use Facility Design Cost	0	LS	\$0.00	1	\$0	yes
Multi-Use Facility Construction Cost	0	LS	\$0.00	1	\$0	no
Utility Extension/Improvements	1	LS	\$15,000	1	\$15,000	yes
Road access & parking lot improvements	1	LS	\$5,000	1	\$5,000	yes
Subtotal Project Cost					\$545,805	
Project Management Fees					<u>Unknown</u>	
Total Project Cost					Unknown	

7. CONCLUSIONS AND RECOMMENDATIONS

The existing facility is a poor quality residential structure with extremely poor space layout, failed plumbing, no handicap accessibility, etc. The ratio of cost for renovations (not recommended) and additions is 2.42 times the cost of new construction. This ratio is partially driven by the lack of utilities at the current site. Under no circumstances would the consulting team recommend renovations and additions to the existing facility. A new facility is sorely needed and recommended.

A community representative indicated that the community has a new site adjacent to the washeteria. We did not observe this site but conceptually it would seem an excellent location with all utilities available.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.

Appendix B: Reference Photographs